Quality Control

Dart Aerospace Ltd

W/O:			W	ES					
DATE	STEP	PRO	OCEDURE CH	ANGE	Ву	By Date Qty Approval Chief Eng / Prod Mgr			
Part No	·	PAR #:	Fault Cat	egory:	NCR: Yes	No DQA	:	_ Date: _	
	R	esolution:	Dispositi	on:	QA: N/C CI	osed:		Date: _	
NCR:	,	,	WORK ORE	DER NON-CONFORMA	NCE (NCR	1)			
DATE	STEP	LIESCRIPTION OF NC		Corrective Action Section	verifica			Approval	Approval
DAIL	SILP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Sectio	n C	Chief Eng	QC Inspector
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Work Order ID 81532 Page 2 March-15-12 10:28:37 AM Item ID: D412-702-021 Accept *N900040100* **Revision ID:** Item Name: 13-Man Shoulder Harness, 4 point Start Qty: 1.00 **Start Date:** 15/03/2012 **Cust Item ID: Req'd Qty:** 1.00 **Required Date:** 29/03/2012 **Customer:** Reference: Run Process Plan: Date: **Approvals:** Tooling: Date: QC: _____ Date: ___ SPC (Y/N): Date: Sequence ID/ Operation Tool ID Set Up/ Tool # Plan Accept Reject Reject Insp. **Work Center ID Description Run Hours** Code Qty Number Stamp **Qty** 130 0.00 Packaging *130* Packaging 0.00 Memo Packaging Identify and pack for shipping as per PPP D412-702-021 Location:

Quality Control

1/10

140

Memo

QC21- Final Inspection - Work Order Release

0.00

0.00

MUJ 12/04/04

MOONY

Dart	Aeros	space	Ltd
	7010	Judec	

W/O:		WORK ORDER CHANGES									
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
			•		-						

Part No:	PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
Resolution:		Disposition:	QA: N/C Closed:	Date:

NCR:		WORK ORDER NON-CONFORMANCE (NCR)									
		Description of NC Corrective Action Section B				Verification	Approval	al Approval			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspecto			
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March-15-12	10:28

0:28:57 AM

Work Order ID: 81532

81532

Parent Item:

D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 15/03/2012

Required Date: 29/03/2012

Page 1

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:B Removed Manufacturing 05-11-08 JLM

IPP Rev:C06.04.03As per DSI9324 JLM IPP rev D 06.12.14 per ecn 871 EC IPP Rev:E 07-03-14 As per DSI 9351 JLM

IPP Rev:F 07-07-28 As per Rev E JLM Verified By:ec IPP Rev.G

11.05.31 DSI 9559 EC verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date S Issued	Status
AN4-13A Bolt		Purchased	No			120	Each	1,367.000	**	4		R)	

<u>Location</u>	Lo	e Oty	Loc Code			
ST357		1367				
119449		59			,	
120187		408			V	
120422		500				
120770		400				
	120	Each	374 0000	. 0	10	

Purchased No

Location	Loc Oty	Loc Code	
GA	50		
116419	50		
ST359	324		
117514	51		
118983	73		
119127	200		\$
V			

Dart Aerospa	ce Ltd
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W/O:			WO	ES					
DATE	STEP	PRO	PROCEDURE CHANGE				Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No:	· •	PAR #:	Fault Categ	jory:	NCR: Yes	No De	QA:	Date: _	·
	R	esolution:	Disposition):	QA: N/C	Closed: _		Date: _	
NCR:	Ç~	V	VORK ORDE	R NON-CONFORMA	NCE (NC	R)			
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DATE	STEP	Description of NC		Corrective Action Section			fication	Approval	Approval
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign Dat	& Se	fication ction C	Approval Chief Eng	Approval QC Inspector
DATE	STEP	Description of NC Section A	Initial	Action Description	Sign	& Se		Approval Chief Eng	Approval QC Inspector
DATE	STEP	Description of NC Section A	Initial	Action Description	Sign	& Se		Approval Chief Eng	Approval QC Inspector
DATE	STEP	Description of NC Section A	Initial	Action Description	Sign	& Se		Approval Chief Eng	Approval QC Inspector
DATE	STEP	Description of NC Section A	Initial	Action Description	Sign	& Se		Approval Chief Eng	Approval QC Inspector
DATE	STEP	Description of NC Section A	Initial	Action Description	Sign	& Se		Approval Chief Eng	Approval QC Inspector
DATE	STEP	Description of NC Section A	Initial	Action Description	Sign	& Se		Approval Chief Eng	Approval QC Inspector
DATE	STEP	Description of NC Section A	Initial	Action Description	Sign	& Se		Approval Chief Eng	Approval QC Inspector
DATE	STEP	Description of NC Section A	Initial	Action Description	Sign	& Se		Approval Chief Eng	Approval QC Inspector

March-15-12 10:28:57 AM

81532 Work Order ID: 81532 Parent Item: D412-702-021 *D412-702-021* Parent Item Name: 13-Man Shoulder Harness, 4 point **Required Date: 29/03/2012 Start Date:** 15/03/2012 Required Oty: 1.00 Start Qty: 1.00 Purchased No 120 1,036.000 Each ** Location Loc Qty Loc Code ST355 1036 116549 6 117508 30 120562 1000 NAS1149D0463J Purchased No 120 14.0000 Each Location Loc Qty Loc Code ST351 14 116289 14 Manufactured 120 6.0000 No Each Bracket Assembly Location Loc Qty Loc Code ST246A 76207 D3195-043 Manufactured No 120 Each 7.0000 Location Loc Qty Loc Code

ST246A

76210

Dart Aerospace Ltd	1
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W/O:			WO	RK ORDER CHAN	GES		,			
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DATE	0750	Description of NC	Corrective Action Sect				Verific	ation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Section		Chief Eng	QC Inspector
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Page 3

Work Order ID: 81532

81532

Parent Item:

D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 15/03/2012 Start Qty: 1.00

Required Date: 29/03/2012

Required Qty: 1.00

Manufactured

120 Each 2.0000

Loc_Code

Manufactured No ST260 79094

Location

Location

2 2 120 Each

Loc Qty

Loc Oty

6.0000

Loc Code

4.0000

Manufactured

Manufactured No

Manufactured

No

No

ST260 80816 0.0000 120 Each

120

120 0.0000 Each

Each

Location Loc Oty ST246A

Loc Code 79155

Dart Aerospace	Ltd	
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W/O:	·,		V	VORK ORDER CHANG	ES				a)	
DATE	STÉP	PRO	CEDURE CH	IANGE	Ву	,	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
										
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Part No		PAR #:	Fault Ca	tegory:	_ NCR: Y	es N	o DQ	A :	`Date:	
	R	esolution:	Disposit	ion:	_ QA: N/C	Clos	sed:		Date:	
NCR:		V	VORK OR	DER NON-CONFORMA	ANCE (N	CR)			r e	
DATE	STEP	Description of NC			ion B	0	Verific		Approval	Approval
	JILI	Section A	Initial Chief Eng	Action Description Chief Eng		n & ate	Secti	on C	Chief Eng	QC Inspector
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Picklist Print

March-15-12 10:28:57 AM

Page 4

Work Order ID: 81532

81532

Location

ST246A

Location

Location

ST246A

Parent Item:

D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 15/03/2012

Required Date: 29/03/2012

Start Qty: 1.00

Required Qty: 1.00

D3268-1

Manufactured No 120

52.0000 Each

D3546-1

No

81139

2 50 120 Each

52

Loc Qty

10.0000

Loc Code

Manufactured No

Manufactured

ST245 73444

10 10 120 Each

Loc Qty

14.0000

Loc Code

Loc Code





Manufactured

80182

Loc Qty 14 14 120 Each

3.0000

Location FG125 79506 Loc Oty

Loc Code

Dart Aerosi	pace Ltd
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W/O:			W	ORK ORDER CHA	NGES					
DATE	STEP	PR(OCEDURE CHA	NGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector
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				· .						_ `
Part No		PAR #:								
	R	esolution:			*				Date: _	
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DATE	STEP	Description of NC	Corrective Action Section B			Sign &	Verification		Approval	Approval
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	March-15-12 10:28:57 AM									Pa	ige 5
	Work Order ID: 81532		*8	1532*							
	Parent Item: D412-702-021			412-702-0	121*						
	Parent Item Name: 13-Man Shoulder F	Harness, 4 point	. ,	 () -	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			tart Date: 15. Start Qty: 1.0		Required Date: 29/03/20 Required Qty: 1.00	12
<u>`</u>	*D4387-041 * Harness Assembly	Manufactured	No		120	Each	11.0000	**	9 (3 B8/	534 A 6	
	,	•		Location	<u>Lo</u>	oc Oty	Loc Code			•	
				quar		5		_			
				72273		5		-		- <u>-</u> .	
	~ ./			ST263 77953		6 6		_	6	-	
5	*D4387-043*	Manufactured	No		120	Each	0.0000	**	4 B8/53	35 (8)	
	Harness Assembly MS21042L4	Purchased	No		120	Each	5,585.000	12	(
	MS210421 4	ruiciiased	140		120	Each	3,383.000	** **	P	180	
Ŭ	1101			<u>Location</u>	Lo	c Oty	Loc Code		1		
				ST300		5585		_		_	
				117441		51		-		_	
				117601 117885		157 16		-		COMA	
				118451		133		-		_	
				119017		232		-		_	
				119075		2996		[,	2	_	
	MS24694-S152			121011		2000				_	
4	*MS24694-S152*	Purchased	No		120	Each	43.0000	** <u>[8]</u>	3/4/4_	D D	
				Location	Lo	c Oty	Loc Code			,	
				ST290		43					
				116440		1	•	_	,	-	
				119108		22		5	5	_	
				120731		20		_		_	

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W/O:			WO	RK ORDER CHANGES					
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Part No	:	PAR #:	Fault Categ	jory: N	CR: Yes	No DQA:	:	Date:	
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NCR:			WORK ORDE	R NON-CONFORMANC	E (NCI	₹)			
DATE	OTED	Description of NC			Verifica	ation	Approval	Approva	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign and Date	k Section		Chief Eng	QC Inspect
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Work Order ID: 81532

Parent Item:

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

81532

D412-702-021

Start Date: 15/03/2012

Required Date: 29/03/2012

Start Qty: 1.00

Required Qty-1.00

Purchased

No

120

Each

37.0000

Loc Code

Location	Loc Qty
ST289A	25
120498 ST290	25
ST290	12
119022	12

Dart ∆e	rospace	Ltd								
W/O:				ORK ORDER CH	ANGES			_	<u> </u>	
DATE	STEP	PRO	CEDURE CHA			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No		PAR #:								
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DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Action Descrip	Section B	Sign 8		cation ion C	Approval Chief Eng	Approval QC Inspector
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REFERENCE ONLY

DART AEROSPACE LTD.

IIN-D412-702-1

Page 20 of 20



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QTY -021	QTY -023	QTY -025	QTY -027	QTY -029	QTY -035	Part Number	Description
ΧĮ						D412-702-021	Dart 13-Man Shoulder Harness Kit, 4-point
\	Х					D412-702-023	Dart 5-Man Forward Facing Shoulder Harness Kit, 4-point
		Х				D412-702-025	Dart 4-Man Aft Facing Shoulder Harness Kit, 4-point
	·		X		:	D412-702-027	Dart 4-Man Side Facing Shoulder Harness Kit, 4- point
				Х		D412-702-029	Dart 1-Man Forward Facing Shoulder Harness Kit, 4-point
					X	D214-702-035	Dart 5-Man Aft Facing Shoulder Harness Kit, 4-point, for Bell 214B/B-1
/ 1	1		1	1	170-17	D412-702-069	GROMMET KIT
						*	
1.2	2					-D3195-041	-BRACKET
کر2	2					D3195-043	BRACKET
1	1			1		D3196-1	BAR
/ 1			11			D3196-3	,BAR
. 1			1			D3196-4	/BAR
/ 2	2					D3197-041	BAR
74		4	Ī		-	D3198-1	FITTING
/ 2	2					D3268-1	'PLACARD
9	5		4	1		D3446-041	HARNESS ASSEMBLY, 4 POINT
4		4				D3446-043	HARNESS ASSEMBLY, 4 POINT
					5	D3446-045	HARNESS ASSEMBLY, 4 POINT
/ 13	5	4	4	1	5	D3551-11	HOOK AND LOOP TIE
12	2					D3546-1	CLIP
(4		4_				_AN4-5A	BOLT
14	4					AN4-13A	₹BOLT
* 8		8	j,			-AN4-20A	BOLT ₂
/20		20				AN960JD416	-WASHER (OR NAS1149D0463J)
12		12				MS21042L4	NUT (OR MS21042-4)
7 8	2		6	2		MS24694-S152	SCREW
78	2		6	2		MS24694-S154	-SCREW
						·	

QTY -069	Part Number	Description	
Х	D412-702-069	GROMMET KIT	
24	D3619-2	GROMMET	
1	D3619-2T1	HOLE PUNCH	
1	D3619-2T2	STRIKER BLOCK	
1	D3619-2T3	PUNCH	
1	D3619-2T4	DIE	

DART SERVICE INSTRUCTION

TO AMEND IIN-D412-702-1 REV. A,
AND ICA-D412-702 REV. 4 OR EARLIER APPROVED REVISIONS
REF. TCCA STC: SH04-7
REF. FAA STC: SR01997NY
REF. EASA STC: EASA.IM.R.S.00710

REFERENCE ONLY

PURPOSE

The purpose of this DSI is to outline the replacement of existing D3446-041/-043 Shoulder Harnesses with the new and improved D4387-041/-043 Shoulder Harnesses.

CHANGE

For the following Kits, the D4387-041 and D4387-043 Shoulder Harnesses respectively replace the D3446-041 and D3446-043 Shoulder Harnesses as follows:

Old Harness P/N	Used On	New Harness P/N	Effectivity
	D412-702-021 D412-702-023		CHG 003 and subsequent
D3446-041	D412-702-027 D412-702-029	D4387-041	CHG 002 and subsequent
D2446 042	D412-702-021)	D4387-043	CHG 003 and subsequent
D3446-043	D412-702-025	<u>/ D4387-043</u>	CHG 002 and subsequent

Customers who want to upgrade their shoulder harnesses may replace their existing D3446-041/-043 with D4387-041/-043 per this service instruction.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO#01-0-01

BY: D. SHEPHERD (DE # 02)

DATE: 11.05.09
CERT. NO.: SH04-7
ISSUE NO.: 3

Α	NEW IS	SUE		MB	11.05.09	
REV.	1		DESCRIPTION	BY	DATE	
DESIGN		LA	DART	DART AEROSPACE LTD		
DRAWN		_43		HAWKESBURY, ONTARIO, CANADA		
CHECKED		a	DSI 9559		REV. A	
MFG. APPR.		N/A			SHEET 1 OF 1	
APPROVED		14	TITLE		SCALE	
DE APPR.			HARNESS C	CHANGE	NTS	
DATE 11.05.09			THIS DOCUMENT IS PRIVATE AND OF NOT TO BE USED FOR ANY PURPO	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND COMPEDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR MAY PURPOSE OR CONED OR COMMUNICATED TO MAY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		